

# Work Order ID 94445

**\*94445\***

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Wednesday, December 19, 2012 9:10:25 AM

Item ID: D6101-001 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Saddle Billet  
 Start Date: 12/19/2012 Start Qty: 50.00 **\*50\*** Cust Item ID:  
 Required Date: 1/28/2013 Req'd Qty: 50.00 **\*50\*** Customer:  
 Reference:

Approvals: Process Plan: PL Date: 12-19-12 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D6101	Rev B								
100	PURCHASING	0.00							
<b>*100*</b>									
Purchasing	Memo	0.00							
Purchasing	Issue P/O: <u>18666</u>								
	a)Description: Alluminum billet								
	b) 6.00" x 6.250" x 2.00" thick								
	c) Tolerance on length are +0.030"/-0.000"Æ+/-0.008"								
	d) Grain direction along 6.00" length								
	e) Material: 7075-T7351 (QQ-A-250/12)								
	f)Material certification required								
110	Receive & Inspect for Damage & Mat'l Certs	0.00							
<b>*110*</b>									
Packaging	Memo	0.00							
Packaging	Ensure material certification is attached								

PL 12-19-12

4301/14 (50)

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions  <input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other
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# Work Order ID 94445

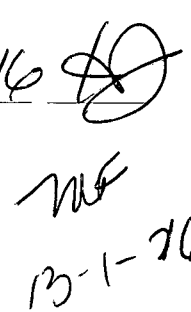
**\*94445\***

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Wednesday, December 19, 2012 9:10:26 AM

Item ID: D6101-001 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Saddle Billet  
Start Date: 12/19/2012 Start Qty: 50.00 **\*50\*** Cust Item ID:  
Required Date: 1/28/2013 Req'd Qty: 50.00 **\*50\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 <b>*120*</b> QC Quality Control	QC6- Inspect dimensions to drawing  Memo Ensure Material certification comply to Dwg D	0.00  0.00	DAS 14 9-89	13/01/16		50	16		
130 <b>*130*</b> Packaging Packaging	Identify as per dwg & Stock Location: <u>MAT 42</u>  Memo	0.00  0.00	ML	13/01/16		50	16		
140 <b>*140*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							13/1/16  MF 13-1-16

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
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Material <input type="checkbox"/>									
Setup <input type="checkbox"/>									
Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

# Picklist Print

Wednesday, December 19, 2012 9:10:30 AM

Page 1

Work Order ID: 94445

**\*94445\***

Parent Item: D6101-001

**\*D6101-001\***

Parent Item Name: Saddle Billet

Start Date: 12/19/2012

Required Date: 1/28/2013

Start Qty: 50.00

Required Qty: 50.00

Comments: IPP B: 01.05.04New IssueC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-001P		Purchased	No			110	Each	0.0000	1	50			
<b>*D6101-001P*</b>									<b>**</b>				
7075-T7351 2X6X6.25													

*43/01/14 (50)*

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

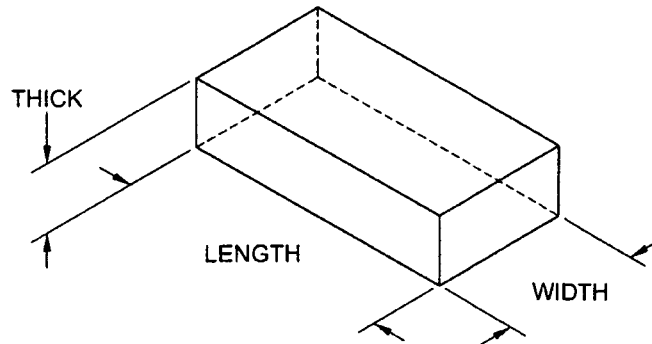
Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Skid-tube <input type="checkbox"/></td> <td style="width: 33%;">Crosstube <input type="checkbox"/></td> <td style="width: 33%;">Water Jet <input type="checkbox"/></td> <td style="width: 33%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data <input type="checkbox"/>									
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Other <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

### FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge  <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled  <input type="checkbox"/> Other
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# SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

**B** ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

**RELEASED**  
09/07/15/W

DAS  
14  
8-83

13/01/16

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

**Castle Metals®**

A. M. Castle &amp; Co.

## BORDEREAU DE MARCHANDISES

Page 1 of 2

No de Formulaire d'Emballage / Shipment No:1596411

<b>Expédié de / Ship From:</b>		<b>Vendu à / Sold To:</b>		<b>Expédié à / Ship To:</b>		<b>Livré à / Deliver To:</b>	
A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		DART AEROSPACE LTD 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CAN		DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date d'expédition / Date Shipped</b>	<b>F.O.B.</b>	<b>Modalités de transport / Freight Terms</b>		<b>Transporteur / Carrier</b>		<b>No du Bon de connaissance / BOL No</b>	
11-JAN-2013	ORIGIN	Prepaid		LOCAL_FLEET		1596411-2	

<b>Détails d'expédition / Shipment Details</b>	<b>Destination finale / Final Destination Branch - MON</b>
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N° de commande / Order No	N° de ligne Line No	N° d'article / Item No	Description	
2605364	1	752237.MO	2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 6.25 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) X 6 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12	
N° de bon de commande / Purchase Order No		Nbre de pièces / Part Number	Qté commandée / Ordered Qty	Qté Facturée / Invoice Qty
18666		YOUR ITEM NUMBER: D6101-001	50.00 PCS	50.00 PCS

<b>Détails / Details</b>		END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS ECCN # EAR99					
<b>N° de livraison / Delivery No :</b>	<b>Usine / Mill</b>	<b>No de coulée / Heat Number</b>	<b>Code méc / Mech Id</b>	<b>Pièces / PCS</b>	<b>Largeur (Pouce) / Width (IN)</b>	<b>Longueur (Pouce) / Length (IN)</b>	<b>Qté expédiée / Shipped Qty(LBS)</b>
118280736	ALCOA INC	212975		50			387.0798

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des Etats-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

Date Printed: 11-JAN-2013 10:32:02 AM





**Castle Metals®**

A. M. Castle & Co.

**BORDEREAU DE MARCHANDISES**

Page 2 of 2

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par  
Reviewed by Authorized Castle Metals Representative:

Date:

Name:

# CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

*Rob Woodell*

Rob Woodell  
Director of Manufacturing Development Works

*Terrence Thom*

Terrence Thom  
Quality Assurance Manager

Page 1 of 3

Ship From:

1456696	0			
Ship Date	B.L. No.	Invoice No.	Alcoa No.	Item
2012-11-16	7521357	00000	1000427307-1	DP-27307-1
P.O. No./Govt Contract No.	Customer	Alcoa Item		
192192 Ln#: 1	A M CASTLE & COMPA G0411222123R02			

Ship To: CASTLE METALS  
3050 SOUTH HYDRAULIC  
WICHITA, KS 67216

## Item Description

2.0 IN TK (+.055 -.055) X 48.5 IN W (+.3125 - 0.000) X 144.5 IN LN (+.5 -0.0) CAT X 752237 (N) A/T 7075-T7351 RECTANGLE MILL FINISH, US1 3MM DEAD ZONE REQ'D BOTH SIDES, SAWED 752237. AMS-QQ-A-250/12 IS 2007 AMS-STD-2154 IS 2010 EXC MRK AMS4078 REV J EXC MRK ASTMB209 REV 10 ASTMB594 REV 09 CMMPO25 REV U CSTI006 REV D DP84.713 CN PROAH EXC MRK MMS159 REV T ((MARKED)) KRAFT PAPER INTERLEAVED MAX GROSS SKID WGT: 4500 LB QUAN TOL +/-40 \* US1 CL A 3 MM CQR 0232767 REV 02 CUST REQ 12-09-26 \*\*\* W/E 12-11-17 \*\*\*

RECERTIFIED TO BSS 7055 REV A, PS21211 REV L AND GAMP5 9101 REV B WITH EXCEPTION TO MARKING. CUSTOMER ASSUMES ANY RISK REGARDING HANDLING, STORAGE, OR PROCESSING WHICH MAY HAVE ALTERED PROPERTIES OR PRODUCT FORM FROM THAT AS ORIGINALLY DELIVERED.

Num	Package Ticket	Lot	Weight	Quantity	UOM	Inspector Clock Numbers
1	468493	661622	2861	2	PC	47348
2	468495	212975	1433	1	PC	47348
3	468495	661621	1434	1	PC	47348
4	468559	212975	1432	1	PC	47348
5	468559	661621	1433	1	PC	47348
			8593	6		

Notes for CQR: 0232767.2

PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154. PRODUCT PRODUCED TO THE REQUIREMENTS OF AMS-STD-2154 ALSO MEET THE REQUIREMENTS OF MIL-STD-2154. THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12F. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12 F ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12.

RECERTIFIED

NO COPY  
2012-11-28



# CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

This test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

Per:

*Rob Woodall*

Rob Woodall  
Director of Manufacturing Davenport Works

*Terrence Thom*

Terrence Thom  
Quality Assurance Manager

Page 2 of 3

1456696

Ship Date

0

B.L. No.

Invoice No.

Ship From:

Alcoa No. Item

2012-11-16

7521357

00000

1000427307-1

DP-27307-1

P.O. No./Govt Contract No.

Customer

Alcoa Item

192192 Ln#: 1

A M CASTLE & COMPA G041122123R02

CQR: 0232767.2 -Specification Limits (cont.) -----

CQR: 0232767.2 -Specification Limits -----

Temp	Dir	UTS KSI	TYS KSI	EL4D PCT
T7351	Long Transv.	Max	68.9	
		Min	57.0	6

T7351 Elec. Cond. (EC) % MIN 38.0 PCT

Chemical Composition		SI	FE	CU	MN	MG	CR	ZN	TI	Other	
										Bach	Total Aluminum
	Max	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.15
	Min			1.2		2.1	0.18	5.1			
Alloy 7075											
Lot: 212975	- Mechanical, Physical, Metallography, Quantometer Results										REMAIN

Temp	Dir	No-> Test	UTS KSI	TYS KSI	EL4D PCT
T7351	Long Transv.	3	72.1	61.2	11.2
			72.4	61.5	11.2
			72.3	61.2	11.3

T7351 Elect Cond %IACS 40.1 40.2 40.1 PCT

Cast Number	Chemical - OBS	SI	FE	CU	MN	MG	CR	ZN	TI
H9054015	Actuals	0.06	0.31	1.6	0.02	2.5	0.19	5.7	0.02
Lot: 661621	- Mechanical, Physical, Metallography, Quantometer Results								

Temp	Dir	No-> Test	UTS KSI	TYS KSI	EL4D PCT
T7351	Long Transv.	3	71.8	61	11.2
			71.9	60.8	10.9
			72.1	60.9	10.9

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COPY**



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**Alcoa Inc.**

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

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A M CASTLE & COMPA G041122123R02

Page 3 of 3

Lot: 661621 - Mechanical, Physical, Metallography, Quantometer Results (cont.) -----  
T7351 Elect Cond %IACS 39.9 40.5 40.3 PCT

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9054015	Actuals	0.06	0.31	1.6	0.02	2.5	0.19	5.7	0.02

Lot: 661622 - Mechanical, Physical, Metallography, Quantometer Results -----

Temp	Dir	No--> Test	UTS KSI	TYS KSI	EL&D PCT
T7351	Long Transv.	3	72.5	61.6	10.6
			72.5	61.5	11.2
			72.6	61.6	11.3

T7351 Elect Cond %IACS 39.9 40.0 40.1 PCT

Cast Number	Chemical - OES	SI	FE	CU	MN	MG	CR	ZN	TI
H9054015	Actuals	0.06	0.31	1.6	0.02	2.5	0.19	5.7	0.02

This material was melted in the United States or a Qualifying Country [REF DFARS 225.872.1(a)]; it was manufactured in the United States

**RECERTIFIED  
COPY**

